months up to June 1952 an average of 427 civil aircraft and 122 military planes passed through Bahrain each month while in the year 1951 some 11,897 passengers entered Bahrain by air. As well as being connected with all parts of the world by the major airlines, smaller local services form a network in the Persian Gulf by which it is possible and usual for local merchants to go to Qatar or Saudi Arabia in the morning and to return to Bahrain the same evening. Many people from Bahrain also spend the weekend with friends in the oil camps of other companies.

The sea has played an important part in Bahrain's history and with the coming of oil and the increased prosperity of the islanders both steamer and dhow traffic has increased. In the year 1951, 847 steamers and tankers and 1,416 local craft carried over 47,000 visitors to Bahrain, a figure equal to about 45% of the total population. The launches and sailing boats came to Manama, Muharraq and other coastal towns, while the steamers and tankers anchored at the Sitra Jetty or in the anchorage north of Manama. At present the only deep water wharves are those of the oil company.

INTERNAL COMMUNICATIONS

Despite its small size, Bahrain and the islands of Muharraq and Sitra are provided with a large number of roads, but this can be accounted for by the presence among the date gardens of many villages as well as by the need for some form of communication with the scattered coastal settlements. Within the towns of Manama and Muharraq the main roads have excellent surfaces and are wide enough for the traffic they carry and the extensive paving that has recently been laid down has made them safer both for drivers and pedestrians.

From the town of Manama four main roads lead into the country ; to the south-east is Belgrave Road ; to the east, the Causeway; to the south, Awal Road and to the west, Budaiya Road.

Belgrave Road becomes Jufair Road after passing through the new residential centre of Qudabiya, and the latter leads past the Race Course to the suburbs of Jufair and Umm al-Hasan.

A second road, Shaikh Isa Road, starts from the Sea Road near the Adviserate and follows a rather erratic course till it leaves the town near the Water Garden and Mental Hospital. From here it passes through four miles of date gardens, broken only by the open ground around the Suq al-Khamis Mosque, then across the bridge at Radhm al-Qawari and into the desert. The road then travels south through the pre-historic tumuli and rises till it passes through an avenue of trees that marks the village of Rifaa al-Gharbi, the winter residence of H.H. The Ruler. From here the road drops abruptly into the central depression and then reaches Awali, 11 miles from Manama. At Awali the road branches in three directions, a road to the east leads to the Refinery and Sitra Island, a second road to the west goes to Zellaq and the west coast of Bahrain and a third skirts Awali and continues

491 south past the Jebal ad-Dukhan and the oil field. This last road, which deteriorates after leaving Awali, after passing Jebal Amr crosses the plain and ascending the rim-rock reaches the Ruler's Hunting Lodge at Rumaitha. From here the road goes due west to another Hunting Lodge at Matalla and joins the road from Zellaq to Ras al-Barr, the southern end of Bahrain Island.

The third main road leading from Manama runs parallel to and about 1-2 miles from the north coast of Bahrain. Passing through some of the most flourishing gardens in the islands, with thick green hedges by the road's edge, the driver is shaded by rows of tall date palms that cast a shadow over the road during most of the day and form an umbrella against the sun. After leaving the village of Jidhafs the road crosses patches of desert, clumps of tumuli alternate with gardens, and for the last few miles before reaching Budaiya, on the north-west corner of Bahrain, there is a shrubby desert where camels, sheep and goats graze. Beyond the Government Experimental Garden the road reaches the sea, and swinging south by the Police Post it enters the village of Budaiya. From here it bears south, through a number of villages and across the pipe-line road from Rifaa to Jesra, and finally to Zellaq.

The fourth road out of Manama, in fact a continuation of the sea road, leads across the Muharraq causeway to the town and island of that name, and after following the Muharraq sea road swings inland and crosses a short stretch of sand before reaching the edge of the Airport. Here the road branches; one branch leads to the north in the direction of the Airport and the other follows the curve of Arad Bay and then goes straight across the desert to the town of Hedd. Other roads branch off from this to the villages which fringe the coasts of Muharraq and to the gardens of Arad.

To return to the main island of Bahrain. Along the length of the Awal Road and particularly where it passes through the gardens, there are various roads and lanes leading to Zinj and Bilad al-Qadim to Saar and Salmabad, while a little distance to the south of Suq al-Khamis is the turning to the south towards the Adari Pool. Further south again a well-surfaced but somewhat winding road connects the Awal and Budaiya Roads, coming out on to the latter about half a mile west of Jidhafs. Shortly after passing Radhm al-Qawari, second class roads to the east and west lead respectively to the villages of the north-east coast, Tubli, Sanad and Ikur, and to Aali and beyond. Further on along Awal Road there is a road junction with a main road branching off to the south-east in the direction of the Refinery and Sitra. This road, after crossing the Awali-Sitra Road skirts the Refinery and then follows the east coast to the villages of Asker, Jaw and Dour.

It is impossible to describe in detail the many roads in Bahrain, but these are shown on the map of Bahrain and most of them branch off from the main roads which have been mentioned.

505 423 486 Communication with the other islands of Bahrain are mentioned in Part III and visits can usually be arranged to them by private agree-

ment with launch or dhow owners, but it should be remembered that some of them are private property. Umm as-Sabaan is the private property of Mr. Max W. Thornberg, Jidda being a penal settlement, is forbidden ground, and Umm an-Nasaan may only be visited with permission of H.H. The Ruler. The others, the small islands south of Muharraq, Nebih Salih, Jezira and the Howar islands are free to all visitors and a visit to them makes a change from drives around the islands.

Transport in Bahrain includes both bus and taxi, the former are not the luxurious affairs seen in Europe and England but have wooden bodies built in Bahrain and attached to an imported chassis. Taxis, however, are not too expensive if care is taken to pay the correct fare which is recorded in a fare book that should be carried by every driver. It is rumoured that taxis will soon carry meters, which will certainly simplify matters, but till that happy day passengers who have complaints to make about being over-charged should make them to the Traffic Department of the State Police.

Petrol and oil are cheap in Bahrain, which is not surprising, and the import tax on cars and motor cycles is only 10%, so that to own and run a private car is cheaper than in England or the States, as many fortunate people have discovered. Most makes of cars are obtainable in Bahrain, garage facilities have increased and the improvement in the roads has enabled English cars to be used with comfort.

The old-fashioned form of transport in Bahrain was the donkey. It was used for every task, for bringing the produce of the country for sale in the town, for pulling carts and for riding. The white Bahrain donkeys used to be well known all over the Middle East and they were exported from Bahrain to places as far distant as the East African coast. Today buses are replacing donkeys, there are bus services between most of the villages, though many of the young men prefer to use bicycles. Lorries too have successfully competed with donkeys and now carry most of the goods between the towns and villages, but in the gardens and in the narrow country lanes one still meets many donkeys though few of the fine white beasts for which the islands were famous long ago. However, the donkey will never entirely die out, for he has certain advantages over other methods of transport, he can reproduce young donkeys, he can find his own way along small and narrow tracks in the gardens and he produces manure, which is a valuable commodity in Bahrain.

CHAPTER V

BAHRAIN'S OIL INDUSTRY

The man who was chiefly responsible for the discovery of Bahrain's oil resources was an Australian, Major Frank Holmes, who came to Bahrain on behalf of the Eastern and General Syndicate, a British prospecting company. Major Holmes, after drilling a number of artesian wells and thus discovering something about the composition

many of the travellers who have visited the islands. Men with deflated sheepskins dive down to the spring and place the mouth of the skin over the place where the fresh water emerges ; the skin then fills with fresh water and when full the diver comes to the surface. Before artesian wells were drilled in Bahrain both Muharraq and Manama obtained much of their water in this way, but today, owing to artesian piped wells and water systems, the undersea springs are little used except those to the north of Bahrain near the pearling banks. A Turkish traveller who visited Bahrain in 1554, Sidi Ali, says of the submarine springs, "The sailors provided with a leather sack, dive down into the sea and bring the fresh water from the bottom for Rais Murad's (the Governor of Bahrain) use. This water is particularly pleasant and cold in spring time. God's Power is boundless !" There is a legend concerning the spring of Abu Mahur which says that in the time of the Caliph Merwan (684-685) a certain Ibn Hakim, a chief in Qatif, wished to marry the lovely daughter of a Bahrain shaikh. His suit was refused and so he attacked the islands and captured all the wells which supplied the towns on Bahrain Island, but the guardian diety of the Bahrainis caused the well Abu Mahur to appear in the sea near Muharraq to succour his people.

NABIH SALIH

A most attractive island is Nabih Salih, set in the Khor-al-Kab between Umm al-Hassan and the mainland of Bahrain. With its thick cultivation, for the date palms run right down to the sea shore, and its many springs, including a large pool much frequented by bathers, Nabih Salih is a very popular place for visitors. In addition to its pool it is a place of pilgrimage for the Shia of Bahrain who go to pay their respects to the tomb of Salih after whom the island is named. The date palms of the island are particularly fine, they compare very favourably with those elsewhere in Bahrain, which is mainly due to the pool already mentioned, Safahiya, which irrigates much of the island. Nabih Salih can be visited by launch or sailing boat, the nearest point to it on Bahrain is Ain al-Hakim ; boats can also be obtained from Umm al-Hasan or from Sitra. People have been known to swim to the island, but this is not the only way of getting there and in the summer this method is inclined to be rather exhausting.

SITRA

South of Nabih Salih and close to the coast of Bahrain is Sitra Island, which in addition to its many villages and gardens contains the Tank Farm and Drum Plant of BAPCO and the land end of the jetty. The site of these installations is a strip of bare and often sea-swept sands, but to the north of the island there are many gardens and a sizeable pool, Ain Raha, which is much visited by the people of Muharraq and Manama. Among the villages of North Sitra are Wadiyan, Sufala, Kharijya and Kuriya. Near the third village is a school and police station. To the south of the island is Umm al-Baidh, literally "Mother

GOVERNMENT GAUGED CARGOES, 1949-53

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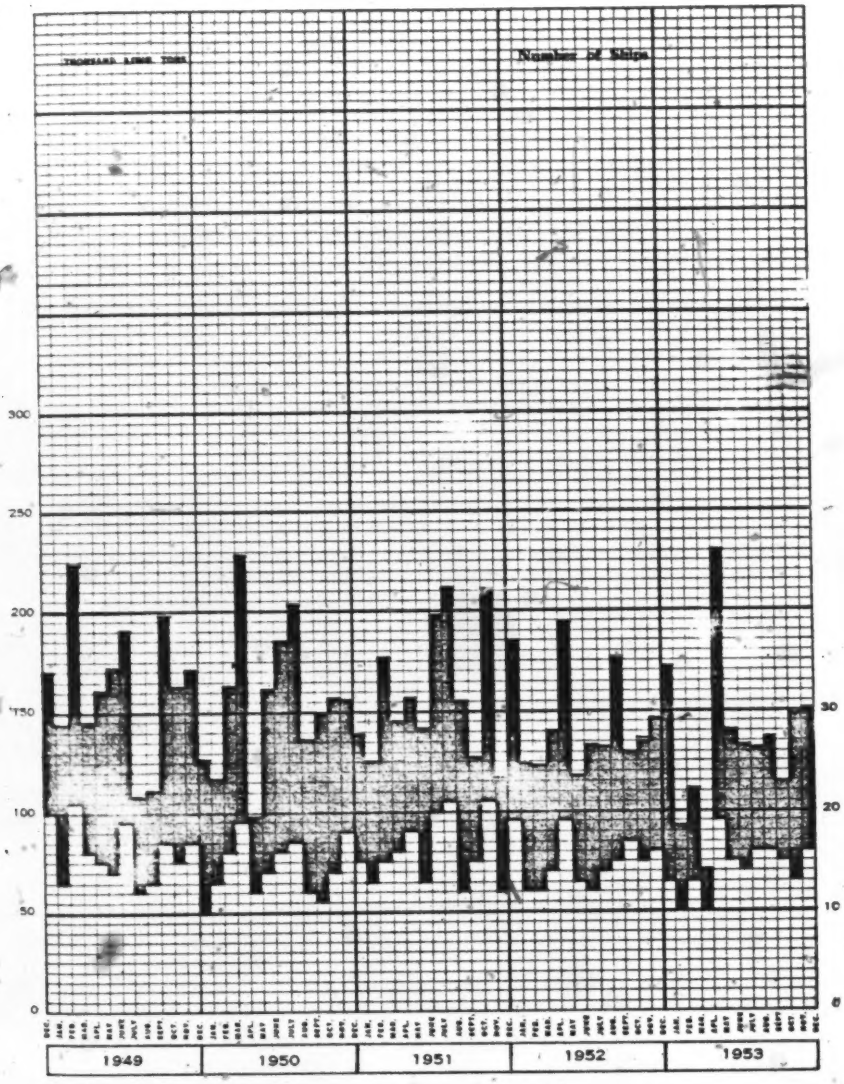

[facing page 50.b]

CASH RECEIPTS RETURN—1372 1/

		Rs.	As.
494	TRANSFER FEES	686	—
651	TAXATION FEES	89,606	1
	NUMBER PLATES	2,397	—
	LICENCE HOLDERS	663	8
	DRIVING LICENCES	14,525	—
	LICENCE BOOKS	1,922	—
	TAXI BADGES	75	—
	DRIVING TESTS—Fees	6,650	—
	LICENCE LATE FEES	335	8
	PEDAL CYCLE TAX	1,697	—
	HIRE OF "L" PLATES	99	—
	LEARNERS LICENCE PERMITS	1,063	8
	REGISTRATION LATE FEES	2,312	—
	REGISTRATION INFORMATION	3	—
	PUBLIC CONVEYANCE LICENCE	865	—
	TAXI DRIVERS LICENCES	853	8
	TRADERS LICENCES	2,175	—
	Total	Rs. 1,25,929	1

OIL INSPECTION DEPARTMENT

(Report by Mr. G. B. Thompson, Government Oil Inspector)

382 439 505 The Refinery throughput of Bahrain Crude Oil remained about the same as the previous year, but the total Refinery throughput, including both Bahrain Crude Oil and Imported Foreign Crude Oil, increased from 9,254,140 Long Tons in 1952, to a figure of 9,654,390 Long Tons in 1953. The actual figures being :

Bahrain Crude Oil	1,480,638 Long Tons
Imported Foreign Crude Oil ..	8,173,751 Long Tons

There was a slight drop in the number of ship cargo inspections carried out :

1952 ..	178 Ships, 476 Parcels, 1,741,861 Long Tons
1953 ..	170 Ships, 463 Parcels, 1,628,045 Long Tons

The term "Imported Foreign Crude Oil" has been used in place of the term "Arabian Crude Oil," used in previous years, the change having been made to allow inclusion of two shipments of Sumatran Crude made late in 1953, which were successfully processed through the Refinery.

Graphs showing the Refinery throughput and the Ship Inspection figures for the last five years are included. 2/

1/ [A.D. 1752-53 -- Analyst] 2/ [Graphs facing page 50a + b -- Analyst]

H/Bahrain G-5 (no date) 1953 M... Bahrain MZ2

BAHRAIN CRAFT REGISTRATIONS

	Wooden Barges.	Steel Barges.	Motor Launches and Barges.	Sailing Craft.	Total.
YEAR 1370 :					
Registered Craft	12		25[illegible]	838	1185
YEAR 1372 :					
New Built in Bahrain for hire ..	—	—	1	—	1
Brought from Holland	—	8	1	—	9
Brought from U.S.	—	—	1	—	1
New Built in Bahrain for private use ..	—	—	1	—	1
Old, purchased from R.A.F. by Anglo-Saxon Petroleum Co., Ltd. ..	—	—	4	—	4
Old, brought from foreign ports ..	—	—	7	6	13
	12	90	268	845	1215
Old craft fitted with engines	—	—	3	3	—
Total ..	12	90	271	842	1215
LESS IN 1372 :					
Sold and removed	—	—	—	1	1
Lost at Sea	—	—	1	3	4
Useless—broken-up	1	—	2	21	24
	1	—	3	25	29
Actual number of craft registered up to the end of 1372	11	90	268	817	1186
Total ..	12	90	271	842	1215

EXPORT OF BAHRAIN OIL PRODUCTS WERE :

	Year 1371		Year 1372	
	Drums.	Tons.	Drums.	Tons.
Gasoline and Aviation Gasoline	34,472	16,57,925	13,990	14,39,471
Fuel Oil	—	33,72,963	—	41,09,845
Diesel Oil	1,600	2,26,033	1,41,000	2,48,435
Diesel Fuel	—	—	—	95,197
Kerosene	8,249	7,46,084	14,550	5,74,433
Gas Oil	7,582	62,566	—	1,03,952
Gas Oil (Diesel)	11,123	3,91,171	2,397	2,79,201
Crude and Synthetic Crude	1,09,200	99,795	—	72,346
Motor Spirit	27,607	1,42,538	—	61,115
Petroleum Products	1,18,700	—	44,308	—
Vaporizing Oil	396	—	—	1,793
Total	3,18,329	66,96,072	2,16,245	69,85,788

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VISITS OF FOREIGN STEAMERS

Nationality	Year 1371	Year 1372
British: B.I.S.N. Company's Steamers	95	98
Strick Line and other British Steamers	149	142
U.S.A.: Ishemian and other U.S.A. Steamers	34	25
Norwegian	11	[illegible]
Panamanian	6	16
Dutch	49	[illegible]
Greek	6	7
Italian	6	13
Danish	15	12
Swedish	13	13
Japanese	2	18
German	12	18
Pakistani	1	—
Turkish	1	2
Belgian	—	1
Liberian	—	1
Honduras	—	1
Ethiopian	—	1
Finnish	—	1
Indian	—	4
	400	[illegible]
Tankers	593	640
Totals	993	1133

NATIONALITY OF TANKERS

	Year 1371	Year 1372
British	177	226
U.S.A.	103	130
Dutch	15	13
Swedish	12	22
Danish	4	6
Italian	3	8
Norwegian	71	66
Panama	157	136
Spanish	18	—
Portuguese	4	6
Japanese	2	[illegible]
Turkish	4	[illegible]
Brazilian	—	3
Liberian	14	7
Chinese	1	—
Pakistani	2	—
French	1	4
Greek	1	1
Indian	4	—
Polish	—	1
Total	593	640

4: Bahrain GEO (no date),1953 - M22 Bahrain (M22

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Staff :

Number of Clerks (Customs)	106	
Number of Clerks (Food Control)	10	
		116

Menials :

Customs, including Guards and Crane Crew	83	
Food Control	4	
		87

Salaries Paid :

Customs Department	Rs. 3,49,193/-	
Food Control	28,998/-	
		Rs. 3,78,191/-

Menials Wages Paid :

Customs Department	Rs. 1,25,899/-	
Food Control	7,897/-	
		Rs. 1,33,796/-

Bills of Entry. The total number of Bills of Entry dealt with was 34,728, an increase of 6,080 over 1371.

Particulars are :

Steamers	24,013
Craft	3,157
Baggage and Aircraft	7,558
Total ..	34,728

Shipping Bills. The total number of Shipping Bills dealt with during the year amounted to 54,441, an increase of 6,218 over 1371.

FOOD CONTROL DEPARTMENT

Holding ample stocks of rice at the beginning of the year under review, and having in mind the possibility of being able to discontinue rationing, the Government made no large scale purchases of rice and sugar in 1372. In all, only Rs. 6 lakhs were spent in the purchase of a small quantity of Persian rice.

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During the year it became more and more obvious that there was plenty of rice available for export from Burma and Siam, so the Government called a meeting of leading importers, and informed them that if they were prepared to import sufficient rice for internal needs (about 85,000 bags, each of 160 lbs. per annum), the Government would cease to purchase and ration this important commodity. The Government would, however, continue to exercise a price control for at least a year. The importers agreed to do this and it was possible to cease rationing by the end of Ramadhan 1372. Since that date supplies have continued to arrive regularly to importers, who have retailed same to the public at prices below the controlled rate.

The Government issued to the public 8 lbs. of rice per adult for the first nine months of the year at prices ranging from Rs. 1.12.0 to Rs. 2.4.0 per ruba, since rationing ceased the price has not exceeded Rs. 2.6.0 per ruba, and is presently being retailed at Rs. 2.4.0 per ruba of 4 lbs.

Sugar was also de-rationed at the beginning of the year, plentiful supplies being available in the local market, and retailed to the public at prices ranging from Rs. 1.10.0 to Rs. 2/- per ruba of 4 lbs. The Government stock of sugar was reserved for *barter* for livestock from Iran and dates from Busrah.

651 439 was imposed on luxury articles, liquor, and tobacco at the end of the previous year. From 1352 onwards the revenue increased steadily, and at the end of the present year, 1356, it will probably reach the high level which it attained in 1346.

The decrease in revenue resulting from general trade depression in Europe, and particularly the slump in the pearl trade, was caused not so much by a reduced amount of imports but by a decrease in the price of commodities which continued for several years. The cost of rice, flour, and coffee became lower each year during the depression, and importation of comparatively expensive European cotton goods diminished as cheap Japanese goods increased. The shortage of ready money for several years, and the inability of the local Arabs to spend much money on clothes was the greatest stimulus to Japanese trade in the Gulf, and especially in Bahrain. If the spending power of the people had not been so restricted it would have been very much more difficult for the Japanese to monopolise the trade in piece goods and fancy goods. Though the customs collections declined owing to the low value of imports, the cheapness of goods enabled many people to live who would otherwise have found it difficult to exist. I give a table showing the prices of various commodities in different years. The amount of imports, etc., are published yearly in the Bahrain trade report.

653 **Customs Improvements.** The customs pier and the import shed were built about twenty years ago; the pier shed was built in 1924. In 1925 a trolley line system was laid down to facilitate removal of cargo from the pier head to the sheds and to the bazaar. The trolley line resulted in doubling the quantity of daily cargo removals.

In 1927 a small mole and three small docks were constructed on the east of the pier. The mole was too narrow to be of much use, and the docks, which were dry at low tide, were also too small for general use. In 1937 the mole was widened and the new customs house was built on the site of the docks and a large piece of land in front of and on each side of the customs house was reclaimed. The additional area has partially relieved the congestion on the pier, where the area for storing cargo was insufficient.

The lighting of the port was improved in 1931 by the erection of a powerful light on the customs pier, which can be seen from the outer (white) buoy. When electricity was introduced, standard lamps were erected on the pier, enabling work to be carried out at night which was previously done under considerable difficulties. In 1933 the Gray Paul Beacon was lighted with a red flash light which affords great assistance at night to lighterage of cargo. A five-ton crane was purchased in 1930.

● 505 **Steamship Lines.** In 1924 the port was served only by the British India Steam Navigation Company Limited, with a very occasional Strick Line steamer. In 1925 the first Hansa Line steamer made its appearance. These two lines, and the Strick-Ellerman lines, now call regularly at Bahrain with direct cargo from Europe. In 1934 the Yamashita line, and in 1936 the Mitsui line, commenced regular callings at Bahrain.

In 1931 the British India Steam Navigation Company Limited began the weekly calling here of their subsidiary down-mail which had previously called every fortnight. In October 1932 the first Imperial Airways liner called at Bahrain, and there is now a bi-weekly air service east and west, a service which is expected to become more frequent.

With the development of the Bahrain Petroleum Company, Sitra became the port of oil tankers, and on occasions special permission has been granted for cargo boats to discharge Bahrain Petroleum Company's cargo at Sitra. On these occasions any ordinary cargo not intended for the Company is conveyed by sea to the customs pier in Manamah. Although the Sitra anchorage is more sheltered than the Manamah anchorage, it is not proposed to develop Sitra in any way as a regular port. Customs officials are stationed at Sitra and attend on the aerodrome when ships or aeroplanes are in port.

504 **Future Improvements.** An improvement to the port which has been under consideration on and off for many years is the extension of the existing pier to the edge of the deep water, which is about 400 yards distant from the pier head. Even if the extension were only a narrow one, it would be of great convenience both for passengers

THE COMPANY ALSO OPERATES A refinery on the eastern side of the island, opposite Sitra. It was expanded in 1945, and 80 to 85 per cent of the crude oil processed is now obtained by pipeline from Saudi Arabia. The refined petroleum products are pumped to storage tanks on Sitra Island, and subsequently to a deep-water loading terminal 3 miles offshore. Over 6,000 Bahrainis, as well as some 1,600 British and Americans, are employed in different branches of the industry. Two thirds of the royalties accrue to the Bahrain government, half of which are utilized for capital expenditures designed to raise the standards of living of the people. Reports for 1951 indicate that 68 per cent of the government income was derived from oil revenues, as against 26 per cent from customs receipts.

The renewed prosperity of the islands and the concurrent growth in population have stimulated private enterprise and the growth of small factories to supply current needs, particularly as regards building materials. Fishing is an important seasonal occupation of many villagers, and preserved fish, fish oils and other fish products are items of export. Agriculture plays a minor role. Barely 5 to 10 per cent of the total land area is under cultivation, and further expansion is restricted by the nature of the terrain, the concentration of water supply in limited areas and a feudalistic system of land tenure. Date gardens flourish in oases on Bahrain, Muharraq and Sitra Islands, but the supply equals less than one quarter of the local requirements. The government is endeavoring to promote the introduction of other crops, and maintains an experiment station at Budaiya.

The sea approaches to the archipelago are shallow, making it necessary for ocean vessels and oil tankers to anchor 2 to 4 miles from the shore. Bahrain and Muharraq, however, have good harbors which accommodate dhows and other shallow-draft vessels. Manama is an active trading center: coastal traffic is more or less continuous, while frequent steamer services are available to the northern Gulf ports and to India AND PAKISTAN.

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p. 257 (B)

30: Gt. Britain G-5 (ca. 1918) 1920 MJ1 Saudi Arabia
BAHRAIN MZ2

same period the figures under the three main heads averaged as follows :—

	Imports.	Exports.
Pearls	£810,000	£1,826,430
Specie	461,280	60,970
General merchandise	789,740	219,350

The principal commodities imported are rice, piece-goods, *ghi*, coffee, dates, sugar, tea, tobacco, spices, fuel, and animals for slaughter. Real exports other than pearls are of small value and importance, Bahrein being a distributing and not a producing centre ; a few textiles and a little sail-cloth almost complete the tale of local manufacture. The principal share of the Bahrein trade falls to the lot of India, which is responsible for more than half of the total, though many goods arriving from that country are really of European origin, sent there for reshipment owing to the lack of direct facilities, and to the fact that Bahrein has grown accustomed to placing orders in Bombay. Next to India come Persia and 'Irāq, less than 10 per cent. falling to all other countries. The natural result of this preponderance is that trade is largely in the hands of Indian and Persian merchants. Besides legitimate commerce, there is a contraband traffic with the South Persian coast. In 1914 there was but a single British firm in Bahrein, Gray, Paul and Co., who are agents for the British India Steam Navigation Co. ; the only other European commercial house was that of R. Wonckhaus & Co., of Hamburg, which had been established for some years. On the outbreak of war there were two resident members of the latter, the manager, who was arrested and interned at Karachi, and his assistant, who belonged to the active reserve of the German Army, and escaped to Basra. The branch was then closed. There are no banks, and transactions are largely carried out by means of Indian currency notes.

Steam communication is chiefly in British hands, the British India Steam Navigation Co. maintaining a weekly service up from Bombay and Karachi, and a fortnightly down to Karachi and Bombay. The Arab Steamers, Ltd., a line started in 1911 in opposition to the British company, call from Bombay about once every three weeks, and again on the return voyage from Basra. The boats of the Persian Gulf Steam Navigation Co. from Bombay call on the outward voyage once a month, and again on their return. Before the war, the steamers of the Hamburg-Amerika line called about once a month on the outward voyage, thus providing the only regular direct access to Bahrein from Europe.